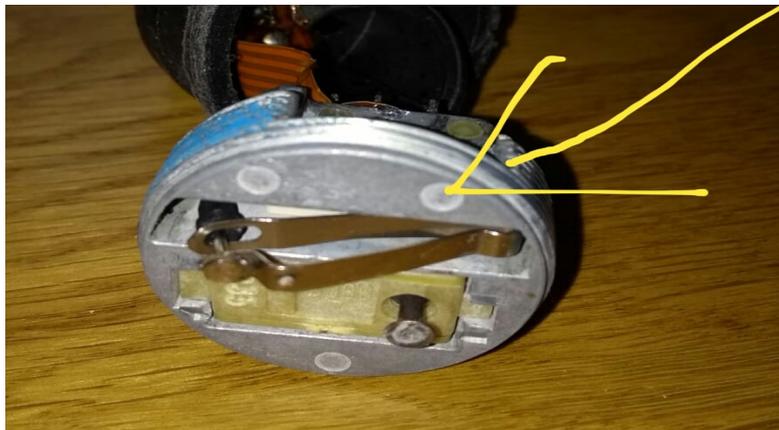


This just a way of fixing a range rover classic or 38a abs pressure switch.

I have had 2 go on me, both with the same fault so to check that these faults werent idiosyncratic to my car I got over a period of time another 9 that were not working.

How the switch works is very simple.

It uses the brake fluid pressure to push on a plunger that moves up inside the green abs switch barrel and literally just clicks on/off micro switches which control the pump coming on and off along with the abs warning light coming on/off and finally stopping the abs working altogether -should pressure drop too low to work properly. The switches work within designed upper and lower pressure ranges using long throw micro switches(not sure if that is correct term) . So that they are not continually turning on and off with every small variation of pressure. These switches send a signal current only not a load current,



This is the underside of bit screwed into the green barrel that attaches to black electrical plug via pcb ribbon. Below is topside, this one was heavily used to try things out hence condition of it!!



Out of all the failed switches ive looked at 11 in total not a huge sample but a sample of sorts.

No switch had failed due to the plunger leaking fluid and thus not moving or a stuck plunger.

1 x switch had failed micro switch which had caused the failure

10 x switches it was printed electrical ribbon had failed. This was due in every case I looked at to burning of the pump signal pcb connecting circuit which was used to send the signal to the abs pump relay to turn pump on. I found that it happened more not when pump ran consistently (a sign probabaly that a leak is apparent or pump itself not working properly and thus not attaining correct pressure) but this burnt out pcb was due to a frequent on and off of the pump which shows to me that system is attaining pressure but tdue to air in brake system, faulty accumelator or small leak unable to hold it.

To fix the switches this is what I did and is for info purposes only

firstly need to open the switch I did this very carefully using flat headed screwdriver and a small hamer . Putting screwdriver down between green switch barrel and black plastic electrical plug, The green metal casing just lips over the black plug holding it in place once the lip has been moved the plug will just come out

BE AWARE THAT IT IS ATTACHED TO THE PCB AND MICROSWITCHES SO IT DOESNT COME OUT MILES AND IS DELICATELY ATTACHED,



On its replacement just lip the green barrel metal back over the switch once in place,

My findings is that you will immediately see on the pcb a burnt vonnector, if your lucky its just one that will be burnt. but if badly burnt it may have taken the one next to it also.



This picture is just an example of one I dug around at but shows what you are going to see a damahed pcb ribbon,

this is it attached to the micro switches and below it attached to back of black or white plug



all I have done too fix mine is literally cut back the burnt pcb ribbon neatly (not on above picture these are just samples. And using a very flexible 12v wire I soldered it to the top of the micro switch connectors and black plug connectors to reestablish a connection and they work fine again. If your switch is this burning causing the fault. Its only a small trigger signal and so a small very flexible 12v wire is all that I used,

I then put the electrical switch back in the pressure switch casing and the lips re brnt to secure it and job for me was done.

I have taken the micro switches out of the barrel (they simply unscrew) and tested

them it may be your fault is a corroded connection or sticking switch BUT you have to mark 100 percent accurately where the micro switch holder is positioned in the casing as this is paramount to everything working at the correct pressure. If not screwed in enough the whole system to the driver will work in the right order and seem correct but will be at far too high a pressure and if screwed too far in the whole system again will look like its working ok but will be at far too low a pressure.

As I say ive found 90 percent of faults is this burnt pcb and have saved a few quid fixing mine, I obv also check and remedy whu pump was running so much as that is also needed not just fixing the switch

Hope this is some interesting info if not a bit basic.